

Amendments to the Claims:

The following listing of claims below will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of treating a pulmonary disease comprising the administration of a therapeutically effective amount of a pharmaceutical composition to a subject in need of such treatment, wherein the pulmonary disease has as a symptom the excess formation of mucus secretions in the airways, said pulmonary disease is selected from the group consisting of chronic bronchitis, acute asthma, cystic fibrosis, chronic obstructive pulmonary disease and bronchiectasis, said composition comprising one or more mucoactive agents which assist mucous clearance through one or more of the following mechanisms: reducing cross-linking within the mucus, diluting the mucus, and digesting naked DNA and cell debris within the mucus, wherein the composition is a dry powder and comprises one or more glycosaminoglycans heparin and an amino acid 2% or more w/w of leucine and wherein the composition comprises 2% or more w/w of amino acid.

Claim 2 (currently amended): ~~A composition as claimed in~~ The method of claim 1, wherein one or more of the mucoactive agents are able to reduce inflammation.

Claim 3 (currently amended): ~~A composition as claimed in~~ The method of claim 1, comprising two or more mucoactive agents.

Claim 4 (cancelled).

Claim 5 (cancelled).

Claim 6 (currently amended): ~~A composition as claimed in~~ The method of claim 1, wherein the composition further comprises glycosaminoglycan is ~~one or more of the following: heparin and~~ a heparinoid.

Claim 7 (currently amended): ~~A composition as claimed in~~ The method of claim 6, wherein the heparinoid is one or more of the following: danaparoid sodium and dermatan sulphate.

Claim 8 (currently amended): ~~A composition as claimed in~~ The method of claim 6, wherein the heparinoid contains heparin, dermatan sulphate and chondroitin sulphate.

Claim 9 (cancelled):

Claim 10 (currently amended): ~~A composition as claimed in~~ The method of claim 1, further comprising one or more of: a monosaccharide, a disaccharide, and an oligosaccharide.

Claim 11 (currently amended): ~~A composition as claimed in~~ The method of claim 1, further comprising one or more of: dextran, dextrin, glucose and mannitol.

Claim 12 (cancelled).

Claim 13 (currently amended): ~~A composition as claimed in~~ The method of claim 1, further comprising one or more of: rhDNase, gelsolin and thymosin β 4.

Claim 14 (currently amended): ~~A composition as claimed~~ The method of claim 1, further comprising one or more of: acetylcysteine and Nacystelyn.

Claim 15 (currently amended): ~~A composition as claimed in~~ The method of claim 1, wherein the composition is a dry powder for pulmonary inhalation.

Claim 16 (currently amended): ~~A composition as claimed in~~ The method of claim 15, wherein the composition has a less than 5 μm fine particle fraction of at least 50%.

Claim 17 (currently amended): ~~A composition as claimed in~~ The method of claim 15, wherein the composition has a fine particle fraction ~~dose~~ of between 50 and 90%.

Claim 18 (currently amended): ~~A composition as claimed in~~ The method of claim 15, comprising particles of at least one mucoactive agent and a force control agent.

Claim 19 (currently amended): ~~A composition as claimed in~~ The method of claim 18, wherein the force control agent is selected from the group consisting of: an amino acid peptide or derivatives thereof, a phospholipid and a metal stearate.

Claim 20 (currently amended): ~~A composition as claimed in~~ The method of claim 19, wherein the force control agent is selected from the group consisting of: leucine, lysine, cysteine, and mixtures thereof.

Claim 21 (currently amended): ~~A composition as claimed in~~ The method of claim 18, wherein the force control agent is included in an amount of up to 50% w/w.

Claim 22 (currently amended): ~~A composition as claimed in~~ The method of claim 15, wherein the composition comprises particles of mucoactive agent having a mass median aerodynamic diameter ~~MMAD~~ of less than 10 μm .

Claim 23 (currently amended): ~~A composition as claimed in~~ The method of claim 22, wherein the particles of mucoactive agent have a mass median aerodynamic diameter ~~MMAD~~ of from about 2 to about 5 μm .

Claim 24 (currently amended): ~~A composition as claimed in~~ The method of claim 15, wherein the composition further comprises carrier particles.

Claim 25 (currently amended): ~~A pharmaceutical composition as claimed in~~ The method of claim 1, for the treatment of a human patient in need of such therapy.

Claim 26 (cancelled)

Claim 27 (cancelled)

Claim 28 (cancelled)

Claim 29 (cancelled)

Claim 30 (previously presented): A method of producing particles for use in a composition as claimed in claim 1, the method comprising spray drying the one or more mucoactive agents in a spray drier.

Claim 31 (previously presented): A method as claimed in claim 30, wherein the step of spray drying further includes producing droplets moving at a controlled velocity.

Claim 32 (original): A method as claimed in claim 31, wherein the velocity of droplets at 5mm from their point of generation is less than 20m/s.

Claim 33 (previously presented): A method as claimed in claim 31, wherein the spray drier comprises an ultrasonic nebuliser.

Claim 34 (previously presented): A method as claimed in claim 31, wherein the one or more mucoactive agents are co-spray dried with a force control agent.

Claim 35 (previously presented): A method of producing particles for use in a composition as claimed in claim 1, the method comprising the step of jet milling particles of the one or more mucoactive agents in the presence of an element selected from the group consisting of: air, a compressible gas, and a fluid.

Claim 36 (original): A method as claimed in claim 35, wherein the particles are jet milled in the presence of a force control agent.

Claim 37 (previously presented): A method as claimed in claim 35, wherein the step of jet milling is carried out at an inlet pressure of between 0.1 and 3 bar.

Claim 38 (previously presented): A method as claimed in claim 35, wherein the step of jet milling is carried out at an inlet pressure of between 3 and 12 bar.

Claim 39 (previously presented): A method as claimed in claim 35, wherein at least 90% by volume of the active particles are less than 20 μ m in diameter prior to jet milling.

Claim 40 (previously presented): A method as claimed in claim 30, wherein 90% of the resulting dried particles have a size of less than 10 μ m, as measured by laser diffraction.

Claim 41 (currently amended): ~~The composition as claimed in~~ The method of claim 15, wherein said composition has a fine particle fraction of between 70 and 99%.

Claim 42 (currently amended): ~~The composition as claimed in~~ The method of claim 15, wherein said composition has a fine particle fraction of between 80 and 99%.

Claim 43 (currently amended): ~~The composition as claimed in~~ The method of claim 15, wherein said composition has a fine particle fraction of between 60 and 70%.

Claim 44 (currently amended): ~~The composition as claimed in~~ The method of claim 18, wherein the force control agent is included in an amount of less than 10% w/w.

Claim 45 (currently amended): ~~The composition as claimed in~~ The method of claim 18, wherein the force control agent is included in an amount of less than 5% w/w.

Claim 46 (currently amended): ~~The composition as claimed in~~ The method of claim 15, wherein the carrier particles have a particle size of at least 20 μ m.

Claim 47 (currently amended): ~~The composition as claimed in~~ The method of claim 1, wherein the composition comprises 2% to 10% w/w of leucine ~~amino acid~~.

Claim 48 (currently amended): ~~The composition as claimed in~~ The method of claim 1, wherein the composition comprises 2% to 70% w/w of leucine ~~amino acid~~.

Claim 49 (new): A composition for assisting mucus clearance, the composition comprising heparin and 2% or more w/w of leucine, wherein the composition is dry powder for pulmonary inhalation and assists mucus clearance through one or more of the following mechanisms: reducing cross-linking within the mucus, diluting the mucus; and/or digesting naked DNA and cell debris within the mucus.

Claim 50 (new): The composition as claimed in claim 49 wherein the composition comprises 2% to 10% w/w of leucine.